



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

MONDET

Appl. No. 09/848,462

Filed: May 4, 2001

Atty. Ref.: 2365-30

Group: 1616

Examiner: Lamm

For: COSMETIC USE OF AT LEAST ONE POLYORGANOSILOXANE AS A GELLING  
AGENT AND COSMETIC COMPOSITION CONTAINING IT

\* \* \* \* \*

September 8, 2003

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE**

Responsive to the Official Action dated May 7, 2003, entry and consideration of the following remarks are requested; the period for response having been extended up to and including Monday, September 8, 2003, by submission of the requisite petition and fee, attached.

Claims 1-6, 8-13 and 15-37 are pending. The Examiner's indication on page 4 of the Office Action dated May 7, 2003 (Paper No. 19) that claims 4-6 and 11-13 contain allowable subject matter is acknowledged, with appreciation. The applicants submit all of the pending claims are in condition for allowance and consideration of the following comments in this regard is requested.

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The Section 102 rejection of claims 1-3, 8-10, 15-21, 27-35 and 37 over Lee (U.S. Patent No. 5,919,437), is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following distinguishing comments.

Initially, the Examiner is urged to appreciate that claim 1, for example, relates to a method of gelling a cosmetic composition which includes adding to a cosmetic composition, as a gelling agent, at least one linear or cyclic polyorganosiloxane which contains at least two organosiloxy units and at least two side groups or end groups, each of the groups being capable of forming at least one hydrogen bond with one or more partner groups, the organosiloxy units being represented by the following formula:



in which:

R is a linear, branched or cyclic alkyl group, an aryl group, a polyether group or a fluoro group,

R' is a group capable of forming at least one hydrogen group,

a is 1, 2 or 3, and

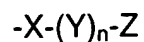
b is 0 or 1, with the proviso that a+b is equal to 2 or 3,

the group R' being selected from:

(a) a group derived from an unprotected or partially protected amino acid,

and

(b) a carboxylic acid, an amine or a phenol group of formula:



in which:

X is a linear, branched or cyclic alkylene or alkenylene spacer chain, optionally containing one or more heteroatoms in the chain;

Y is a monocyclic or polycyclic, divalent unsaturated hydrocarbon based group, said polycyclic group optionally containing up to 4 fused rings,

n is an integer ranging from 1 to 4, and

Z is a -COOH or -OH group, or a primary, secondary or tertiary amine group.

Claim 8, for example, provides a cosmetic composition containing, in a cosmetically acceptable medium, at least one linear or cyclic polyorganosiloxane as above-defined in claim 1.

Lee et al (U.S. Patent No. 5,919,437) describes a solid cosmetic composition containing:

(1) an active cosmetic material, such as deodorant active materials, antiperspirant active materials, sunscreen materials, insect repellents and anti-fungal agents, and

(2) a silicone gel material as a carrier for the active material, to provide a solid composition.

The silicone gel material of Lee et al includes a volatile silicone material and a crosslinked organopolysiloxane material (claim 1; column 3, lines 9-12; column 5, lines 59-62). The organopolysiloxane of Lee is a reaction product of a polysiloxane and a cross-linking agent. More particularly, the organopolysiloxane of Lee is a reaction product of a vinyl-terminated siloxane polymer and a hydride crosslinking agent; the reaction being carried out in the presence of a platinum catalyst (column 3, line 66; column 4, line 6; column 6, lines 5-10; and claim 1).

Moreover, Gransil GCM (a product of Grant Industries) mentioned as an illustrative silicone gel material in Lee (column 6, lines 32-35) and used in Examples 1-7 and 11 consist of a crosslinked copolymer polysilicone-11 which is formed by reaction of a vinyl-terminated silicone and methylhydrodimethylsiloxane (see attached copy of page 1148, International Cosmetic Ingredient Dictionary and Handbook, eighth edition 2000), and of octamethylcyclotetrasiloxane.

Lee et al. do not describe the particular polyorganosiloxanes of the presently claimed invention, which require side or end groups forming at least one hydrogen bond (and not nitrogen bond as mentioned by the Examiner on page, point 3 of Paper No. 19) with one or more partner groups, the groups capable of forming at least one hydrogen bond being defined, for example, in claim 1 of the present application.

Furthermore, polyorganosiloxanes, as described in claim 1, are not crosslinked polyorganosiloxanes.

Therefore, polyorganosiloxanes, as described in claim 1, have a chemical structure different from crosslinked organopolysiloxanes of Lee et al, which are used as gelling agent, and the method of gelling a cosmetic composition using a silicone, as defined in claim 1, as a gelling agent, is consequently novel in view of Lee et al. Similar arguments apply to the novelty of the claimed methods, such as claim 8. The silicones used in cosmetic compositions of Lee et al are different from those defined in, for example, claim 8.

The claims are submitted to be patentable over Lee and withdrawal of the Section 102 rejection of claims 1-3, 8-10, 15-21, 27-35 and 37 over the same is requested.

The Section 103 rejection of claims 22-26 and 36 over Lee in view of Mellul (U.S. Patent No. 5,738,841), is traversed. Reconsideration and withdrawal of the Section 103 rejection are requested in view of the following distinguishing comments.

The presently claimed invention allows for the removal of conventional gelling agents in a cosmetically acceptable medium. The presently claimed invention requires the use or inclusion of specific polyorganosiloxanes (as described, for example, in claims 1 and 8) comprising amino acid derived group and/or carboxylic acid, amine or phenol group represented by the formula  $-X-(Y)_n-Z$ , Y being a monocyclic or polycyclic unsaturated hydrocarbon group. These polyorganosiloxanes have groups capable of forming at least one hydrogen bond with one or more partner groups.

The use of these specific polyorganosiloxanes in a cosmetic composition results in the gelation of the medium and in obtaining the longest possible duration of the cosmetic and/or care effect(s) (page 2, lines 24-28 and examples 1 to 3).

Lee et al describe a silicone gel material which comprises a crosslinked organopolysiloxane and a volatile silicone material. The silicone gel material of Lee et al is taught to provide a solid cosmetic composition (claim 1 and column 5, lines 59-62).

Lee et al is concerned therefore with obtaining a stable and substantially anhydrous compositions free of conventional gelling agents and free of syneresis and which have good cosmetic properties, in particular no visible residue upon application and after drying, and a silky and non-greasy feel (column 2, lines 15-21).

This effect is provided by the use of a silicone gel material as described in Lee et al.

There is no indication nor suggestion in Lee et al for one of ordinary skill in the art to replace crosslinked polyorganosiloxane by non-crosslinked polyorganosiloxanes comprising side or end groups forming at least one hydrogen bond with one or more partner groups, the groups capable of forming at least one hydrogen bond being defined, for example, in claim 1 or 8.

Moreover, Lee et al does not teach or suggest cosmetic compositions comprising a silicone as described in, for example, claim 8, in order to obtain a gelation of the cosmetically acceptable medium and the properties described in the invention (for example, a good staying power over time of a lipstick (example 1), a long lasting, glossy colouring effect of a lip gloss (example 2)).

Accordingly, Lee et al fails to teach or suggest a change in the structure of polyorganosiloxanes in order to obtain a method of gelling using a different silicone (according to claim 1, for example, and a composition, for example, according to claim 8).

Mellul et al describe cosmetic compositions comprising at least one silicone-containing compound and octyldodecyl neopentanoate as a compatibilizing agent, and optionally hydrocarbons. Mellul et al are concerned with improving the compatibility between silicones and hydrocarbons. Mellul et al have found that octyldodecyl neopentanoate functions as a compatibilizing agent.

In Mellul et al, silicones are chosen from silicone oils, gums and/or waxes (column 2, lines 47-49). Particular examples are given on column 2, line 50; column 3, line 6. None of these silicones has the same structure as those of the presently claimed invention.

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Consequently, there was no suggestion or teaching in Mellul et al, when compared to the teaching of Lee et al, leading one of ordinary skill in the art to a method of gelling or a cosmetic composition of the presently claimed invention.

There was no suggestion for one of ordinary skill in the art, when considering Lee et al in view of Mellul et al, to modify the structure of silicones in order to gel a cosmetically acceptable, as presently claimed.

Reconsideration and withdrawal of the Section 103 rejection of claims 22-26 and 36 over Lee in view of Mellul are requested.


The claims are submitted to be in condition for allowance and a Notice to that effect is requested.

The Examiner is requested to contact the undersigned if anything further is required in this regard.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



B. J. Sadoff  
Reg. No. 36,663

BJS:plb  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100